

From: [Chip Humphrey](#)
To: [Jim McKenna \('Jim McKenna '\); Rick Applegate \(Rick Applegate\); rjw@nwnatural.com; Todd Martin](#)
Cc: [Christine Hawley; Eric Blischke; Keith Pine; Valerie Oster; Bill Locke](#)
Subject: RE: LWG's understanding of the modifications to the Addendum 1 Transition Zone Water Sampling Plan (based on our 9/23/05 meeting)
Date: 09/30/2005 11:58 AM

Jim, Bob and Rick

We have reviewed the proposed changes to the Portland Harbor RI/FS Field Sampling Plan, Transition Zone Water (TZW) Sampling Addendum 1, Sampling Plans for ExxonMobil, Siltronic, Gasco and Arkema (Integral 2005), described in the September 28, 2005 email (below) from Todd Martin (including the changes described in the 9/26/05 email "LWG's understanding of the modifications to the Addendum 1 Transition Zone Water Sampling Plan) and determined that it accurately reflects the agreements reached during our meeting on September 23, 2005 and our conference call on September 27, 2005.

We have also reviewed the proposed changes to the Round 2 Quality Assurance Project Plan Supplement to Addendum 3: Groundwater Pathway Assessment Transition Zone Sampling as described in your September 28, 2005 letter and determined that they are acceptable.

As a result, EPA authorizes the LWG to proceed with TZW sampling at the ExxonMobil, Siltronic, GASCO, and Arkema sites. EPA understands that the TZW sampling is scheduled to begin on October 3, 2005. Please submit a final TZW FSP and QAPP incorporating the agreed modifications for final approval. EPA will approve the TZW QAPP and FSP at that time.

Please also note that, as we have discussed, there may be a need for additional data to complete the characterization following the review of the TZW sampling results obtained from this effort, as well as resolution of EPA comments (not directly related to this sampling plan) on the previous groundwater SAP and FSP that we still need to work through.

Please let Eric or me know if you have any questions.

Chip Humphrey
EPA RPM

▼ [Todd Martin <tmartin@integral-corp.com>](mailto:tmartin@integral-corp.com)

Todd Martin
<tmartin@integral-
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To Chip Humphrey/R10/USEPA/US@EPA, Eric
Blischke/R10/USEPA/US@EPA

09/28/2005 09:47 AM

cc "Jim McKenna ('Jim McKenna ')"
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<ricka@bes.ci.portland.or.us>, Valerie Oster
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Subject RE: LWG's understanding of the modifications to the
Addendum 1 Transition Zone Water Sampling Plan
(based on our 9/23/05 meeting)

Eric, Chip –

Per our telephone discussion yesterday, in addition to the agreed upon modifications to our 9/26/05 email "LWG's understanding of the modifications to the Addendum 1 Transition Zone Water Sampling Plan (based on our 9/23/05 meeting)" [copied below], the LWG and EPA also agreed to the following 2 additional modifications to Addendum 1:

1. The metals analyte list will be expanded to include the 13 priority pollutant metals.
2. The geologic cross sections for each site will be amended to include the upland and, where available, in-river concentrations of COIs measured in groundwater at each of the sites. [Note: hand-drawn markups of these figures have already been provided to the EPA. As part of the Round 2 Groundwater Pathway Assessment Reporting, these figures will be converted to an electronic format and revised to include the results of the transition zone water sampling].

Cheers,

Todd

Todd Martin, P.E.
Managing Engineer

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From: Keith Pine
Sent: Monday, September 26, 2005 12:14 PM
To: Chip Humphrey; Blischke. Eric@epamail.epa.gov (E-mail)
Cc: Jim McKenna ('Jim McKenna '); rjw@nwnatural.com; Rick Applegate (Rick Applegate); Valerie Oster; Todd Martin; Bill Locke; Christine Hawley
Subject: LWG's understanding of the modifications to the Addendum 1 Transition Zone Water Sampling Plan (based on our 9/23/05 meeting)

Eric, Chip –

Pursuant to our meeting on Friday September 23, 2005, this email lists the LWG's understanding of the modifications to the Addendum 1 Transition Zone Water Sampling Plan (Integral 2005a)¹ that were agreed upon by the EPA (and its partners) and the LWG. These modifications are changes required by the EPA and its partners to the sampling plans specified for the four sites (Gasco, Siltronic, Exxon, and Arkema) in Addendum 1¹ prior to proceeding with the sampling.

1. Gasco Site: A 30-cm depth sample will be collected from location GSC6-D.
2. Siltronic Site: Samples will not be collected for analysis of herbicides in order to reduce the total volume of transition zone water required for analysis and, thereby, reduce the number of peepers required for this site.
3. Exxon Site:

- Shallow (30-cm) and deep (90 to 150 cm)

samples will be collected from location EM1-A. In the event that the shallow sample depth does not produce >20 mL/min during purging with the Trident Probe, the shallow sample will be collected using small volume peepers.

- A deep (90 to 150 cm) will be collected at location EM2-A in addition to the shallow sample already planned for this location.
- Shallow (30-cm) and deep (90 to 150 cm) samples will be collected from location EM2-C, but only if these locations have conditions that support sampling by the Trident Probe (i.e., sampling rates of >20 mL/min can be achieved).
- Shallow (30-cm) and deep (90 to 150 cm) samples will be collected from location EM4-C. In the event that the shallow sample depth does not produce >20 mL/min during purging with the Trident Probe, the shallow sample will be collected using small volume peepers.
- As prescribed in the FSP (Integral 2005b)², the collection of all of the deep samples will be attempted using the Trident Probe. If a given location does not produce >20 mL/min during purging with the Trident Probe, the deep sample will not be collected from the location.
- Location EM11-B will be moved to coincide with the location of the Round 2 core C179.

4. Arkema Site:

- Perchlorate will be added to the list of analytes for the transition zone water samples associated with the acid plant area.
- VOCs will be the list of analytes for the

transition zone water samples for locations R2-CP-1 and CP-06-A.

It is LWG's understanding that with the acceptance of the above changes to the sampling plan described in Addendum 1 (Integral 2005a)¹, the EPA and its partners will grant conditional approval for the LWG and its contractors to proceed with the transition zone water sample collection at Gasco, Siltronic, Arkema, and Exxon according to the methods and provisions prescribed in the Transition Zone Water FSP (Integral 2005b)² and Supplement to Addendum 2 to the Quality Assurance Project Plan (Integral 2005c)³. Because the transition zone water sampling is scheduled to begin Monday October 3, 2005, it is requested that written conditional approval be provided to the LWG no later than Thursday September 29, 2005.

¹ Integral 2005a. Portland Harbor RI/FS Transition Zone Water Field Sampling Plan. Prepared for the Lower Willamette Group, Portland, OR. Integral Consulting Inc., Mercer Island, WA.

² Integral 2005b. Portland Harbor RI/FS Transition Zone Water Field Sampling Plan. Prepared for the Lower Willamette Group, Portland, OR. Integral Consulting Inc., Mercer Island, WA.

³ Integral. 2005c. Portland Harbor RI/FS Supplement to Addendum 2 to the Quality Assurance Project Plan. Prepared for the Lower Willamette Group, Portland, OR. Integral Consulting Inc., Mercer Island, WA.

Please direct any technical questions to Todd Martin.

Regards,
Keith

Keith Pine, P.G.

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